

Action Plan: Mesquite Hazardous Fuel Reduction Project

January 08, 2003

Project Description:

Purpose and need:

The Virgin River riparian corridor is heavily infested with the invasive, non-native tree species *Tamarix ramosissima* (Tamarisk or Salt Cedar). Tamarisk-dominated stands are more flammable than the native cottonwood and willow gallery forests. Compared to the native riparian habitats in the American Southwest, tamarisk stands exhibit greater fuel loading (stand density), closer canopy continuity and vertical structure, lower fuel moisture content, and much greater accumulation of surface litter. As a facultative phreatophyte, tamarisk does not require a constantly saturated root zone and hence is able to occupy drier terrace positions within the river floodplain. This increases the horizontal extent and arrangement of the fire fuel bed in comparison to the native cottonwoods and willows, which tend to form narrow, somewhat linear stands along the immediate fringes of live streams. Besides posing an increased risk of wildfire ignition and spread versus native vegetation, tamarisk-infested habitat also exhibits a significantly shorter fire return interval. Under typical conditions tamarisk will readily reestablish its dominance on burned areas, in large part because the species is an aggressive stump sprouter following any type of surface disturbance, including fire.

The City of Mesquite, Nevada and the unincorporated township of Bunkerville, Nevada straddle the Virgin River riparian corridor and thus are at increased risk of wildfire-related impacts along several miles of direct wildland urban interface.

Method/type and acreage of treatment:

The ownership pattern within the JE25 project area is a mix of public (BLM) and private lands. Depending on the level of project participation by the various private landholders, the full target treatment acreage will vary between approximately 500-1,000 acres. Treatment methods will be tailored to site-specific ecological constraints, owing to the presence of federally-listed wildlife species in the JE25 project area. Along the fringe of the river and within scattered pockets that are still dominated by native vegetation, the tamarisk will be hand-cut then treated with herbicide in order to inhibit resprouting. Herbicide will be applied by wands, backpack sprayers, or ATV-mounted boom sprayers, using the cut-stump or basal bark methods. Within 25-feet of the river's daily high water mark, the applied herbicide will be glyphosate (Rodeo). Elsewhere, the applied herbicide will be triclopyr (Garlon 4 or Garlon 3A). The latter comprises the great majority of the project area; within which the tamarisk will be removed by heavy equipment methods. Depending upon site logistics (access, dust constraints, terrain), the technique may vary between

mastication (FECON-type shredders), biomass removal, or dozer-blading and piling followed by root plow removal of the tamarisk root crowns.

The vegetative treatment workload will be accomplished primarily by contractors. Contributions will also come from such sources as: force account and other Field Office personnel; volunteers; City of Mesquite employees; agency cooperators, and private landowners (including in the form of equipment or services in kind). Other collaborators will include the Township of Bunkerville; the non-profit organization Outside Las Vegas, and the United States Fish and Wildlife Service.

Anticipated project completion date:

JE25 is a ten-year project, with a tentative completion date of September 30, 2013.

The FY03 target is to complete the NEPA analysis process, the Endangered Species Act section 7 consultation process, and the project Record of Decision by June 01, 2003. Logistics preparation and mapping will be accomplished in order to award a contract for the first 100-acres of tamarisk treatment. The target for awarding the contract is September 01, 2003. Actual treatment will be limited to 5 acres during FY03, due to the constraints imposed by the federally-listed endangered species, Southwestern willow flycatcher (*Empidonax traillii extimus*). On the Virgin River, the nesting season for this species extends through mid-to late September, thus leaving a window of only a few workdays during FY03.

The FY04 target is to treat the remainder of the first 100-acre contract. Similar annual acreages are targeted up until the final 2-3 project years, which will be dedicated to herbicidal retreatments and treatment-effectiveness monitoring efforts.

Biomass generated and opportunities for biomass utilization:

Biomass power generation is of dubious economic viability on the Virgin River. First, there is the relatively small size of the riparian system and its associated tamarisk woodland. Secondly, the Virgin River (from Halfway Wash, Nevada to La Verkin Creek, Utah) is Designated Critical Habitat for two federally-listed endangered fishes, the Woundfin (*Plagopterus argentissimus*) and the Virgin River chub (*Gila seminuda*).

This factor could serve to place restrictions on the number of acres of tamarisk treatment that may be treated on an annual basis, along this segment of the river at least. The entirety of the JE25 project site is situated within the designated critical habitat segment.

The biomass residue material from the JE25 project will be made available to the public. This will consist of either felled trees (for use as firewood) or wood chips (for use as mulching material).

Interdisciplinary Core Team Members:

Tim Rash, Supervisory Fire Ecologist - will author the EA and Biological Assessment documents

Roger Onstad, Fuels Management Specialist – will prepare and administer the project contracts
 Brian Hamilton, Natural Resource Specialist – will implement project monitoring; GIS mapping
 Stan Rolf, Cultural Resource Specialist – will complete Section 106 consultation with SHPO
 Gayle Marrs-Smith, Botanist – will coordinate post-treatment revegetation efforts
 Heather Hundt, Wildlife Biologist – will review the Section 7 Biological Assessment document
 Dan Reinkensmeyer, USFWS Biologist – will recommend T&E species mitigation measures
 The Environmental Assessment will be scoped by the following individuals: Jeff Steinmetz (Environmental Coordinator); Donn Siebert (Visual Resources Management Specialist); Craig Edgar (Air Quality); biologist(s) with the Nevada Division of Wildlife, representatives of the City of Mesquite, Nevada.

Project Planning and Implementation Support Needs:

- Geodetic survey to establish private-public land ownership boundaries and corners
- Site surveys for T&E/Candidate birds: Southwestern willow flycatcher; Yuma clapper rail (*Rallus longirostris yumanensis*); Yellow-billed cuckoo (*Coccyzus americanus*)
- Additional \$30,000.00 to fund a contract Class 3 cultural resources inventory on the full 1000-acre project area.

Planned Timeline for Project:

Activity	Jan 03	Feb 03	Mar 03	Apr 03	May 03	Jun 03	July 03	Aug 03	Sept 03	Oct 03	Nov 03	Dec 03	ID additional Dates as needed
Project Initiation/Issue identification/Scoping	X												
Perform Required Surveys:													
1. Listed Species					X								
2. Cultural Resources	*												
Section 7 ESA Consultation Complete						X							
SHPO Concurrence Complete						*							
Preliminary EA done				X									
Sign FONSI & DR						X							
Initiate Project Implementation									X				

Note: * This is only a contingency. The existing data review of the project area is currently in progress. Because the JE25 project area is located within the floodplain of the river (and has hence been repeatedly scoured of any cultural artifacts) it is anticipated that the results of the existing data review will not indicate

the need for a Class 3 inventory. If no Class 3 inventory is required, the JE25 project will be covered under the existing Statewide Protocol Agreement between the BLM and SHPO.